

1. Amendments to the Claims

This listing of claims shall replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1. (Currently Amended) A method of inducing structural damage in a target cell treating diseased cells in a human or other animal body comprising the steps of:

providing particles comprising one or more nanoparticles of magnetic material;
wherein the particles comprise medication;

introducing the particles into the body;
contacting the directing the particles into or adjacent the diseased cells with the target cell; and

applying a magnetic field to the particles magnetic nanoparticles to induce treat the diseased cells by magnetically induced motion of the nanoparticles or by magnetically induced release of the medication particles, whereby the motion of the particles in contact with the target cell inflicts structural damage to the target cell.

2. (Currently Amended) The method of claim 1 wherein the application of the magnetic field treats the diseased cells by moving the nanoparticles to damage or destroy the cells structural damage of the target cell results in destruction of the target cell.

3. (Currently Amended) The method of claim 1 wherein the particles further comprise

include medication, wherein the medication is delivered to the target cell upon and the application of the magnetic field effects delivery of the medication to the diseased cells.

4. (Original) The method of claim 3 wherein the medication comprises a cytotoxin.

5. (Original) The method of claim 1 wherein the particles comprise magnetic nanoparticles coated with bio-compatible material.

6. (Original) The method of claim 5 wherein the bio-compatible material comprises a material selected from the group consisting of bio-compatible polymers, dextran, silicon oxide and gold.

7. (Currently Amended) The method of claim 1 wherein the particles are introduced into a medium containing the target cell via introduced into the body by-injection.

8. (Currently Amended) The method of claim 1 wherein the particles further comprise are directed or adjacent the diseased cells by one or more targeting molecules attached to the particles.

9. (Original) The method of claim 8 wherein the targeting molecules comprise an antibody or a peptide.

10. (Currently Amended) The method of claim 1 wherein the particles are contacted with the target cell by directing the particles to the target cell directed into or adjacent the diseased cells by magnetic navigation.
11. (Currently Amended) The method of claim 1 wherein the particles are contacted with the target cell by directing the particles to the target cell directed into the diseased cells by magnetic transfection.
12. (Currently Amended) The method of claim 1 wherein the particles are attached to molecules to stimulate endocytosis of the target cell particles by the cells.
13. (Currently Amended) The method of claim 1 wherein the nanoparticles of magnetic material are elongated along one dimension and the magnetic field rotates the nanoparticles to structurally mechanically damage the target cell diseased cells.
14. (Currently Amended) The method of claim 13 wherein the magnetic field is an AC magnetic field at a frequency in the range 1 Hz to 500 Hz.:
15. (Currently Amended) The method of claim 1 wherein the magnetic field laterally oscillates the nanoparticles to structurally mechanically damage the target cell diseased cells.

16. (Original) The method of claim 1 wherein the particles comprise a heat sensitive reservoir of medication and the application of the magnetic field to the nanoparticles provides heat to effect delivery of the medication.

17. (Original) The method of claim 16 wherein the magnetic field is an AC magnetic field at a frequency in range 1 KHz - 5 MHz.

18. (Withdrawn) The method of claim 1 wherein the particle comprises a reservoir of mechanically retained medication and the application of the magnetic field to the nanoparticles provides mechanical damage to the reservoir to effect delivery of the medication.

19. (Withdrawn) The method of claim 18 wherein the magnetic field provides mechanical damage to the particle by moving it to wear away portions of the particle.

20. (Withdrawn) The method of claim 18 wherein the magnetic field provides mechanical damage to the particle by moving nanoparticles within the particle.

21. (Withdrawn-Currently Amended) The method of claim 1 wherein the step of applying a magnetic field to the particles magnetic nanoparticles comprises an application of a magnetic field to structurally mechanically damage the target cell diseased cells by rotating or oscillating the nanoparticles and an application of a second magnetic field to thermally

damage the target cell diseased cells by heating the nanoparticles.

22. (Currently Amended) The method of claim 1 wherein the particles comprise a heat sensitive reservoir of medication and the application of the magnetic field to the nanoparticles provides heat to effect delivery of the medication and to damage the target cell diseased cells by heat.

23. (Withdrawn-Currently Amended) The method of claim 1 wherein the particles comprise a reservoir of mechanically retained medication and the application of the magnetic field comprises an application of a first magnetic field to mechanically damage to the reservoir to effect delivery of the medication and an application of a second magnetic field to heat the nanoparticles for thermal damage to the target cell diseased cells.

24. (Currently Amended) The method of claim 1 further comprising the step of confirming the contact adjacency of the particles to target cell diseased cells or tissue prior to applying the magnetic field.

25. (Currently Amended) The method of claim 22 wherein the contact adjacency is confirmed by MRI imaging.

26-28. (Cancelled)